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IN THE APPLICATION

OF

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FOR A

UNISEX ACTIVE WEAR GARMENT WITH MODIFIED FLY-FLAP
AND STORAGE POCKETS

**UNISEX ACTIVE WEAR GARMENT WITH MODIFIED FLY-FLAP
AND STORAGE POCKETS**

BACKGROUND OF THE INVENTION

1. FIELD OF THE INVENTION

5 The present invention relates to apparel for the lower body, more particularly, a pair of shorts or pants having an opening in the crotch area covered by a completely removable or partially removable pocketed flap.

2. DESCRIPTION OF THE RELATED ART

10 Athletes of all sports, such as runners, skiers, skaters, walkers, bicyclers, or swimmers, have little time to waste when in the heat of competition. Winning or losing depends on time and performance. Athletes, however, cannot avoid taking time out of racing to perform normal bodily functions, such as urination
15 or defecation. The time needed to perform these bodily functions can be unnecessarily prolonged due to the nature of the sport. For example, in the course of competition athletes may not be able to find a discrete area in which to carry out bodily functions. The delay may be further prolonged due to the nature
20 of the apparel usually worn by participants in the sport.

For example, runners and joggers often wear active wear running togs made from spandex or other elastic fabric. During marathon runs or long workouts on park trails, nature sometimes

calls, and the active wear can be difficult or uncomfortable to pull down and pull up over the hips, since the clothing is often damp and heavy with perspiration. Typically the athlete desires a quick way of opening the clothing just enough to eliminate bodily waste, so that they can resume their run as quickly as possible. Though performing normal bodily functions cannot be avoided, modifying the apparel worn by the athlete can drastically reduce the time needed to perform these functions. A number of garments have been proposed to allow the wearer to perform bodily functions without having to disrobe.

U.S. Patent Number 5,930,838, issued to Carter-Scott-Pomije on August 3, 1999, describes pull-on pants or shorts having a flapped opening for the female anatomy. A pocket is provided on the leg panel to hold small items, such as tissue paper. U.S. Patent Number 5,341,515, issued to Cohen on August 30, 1994, describes a medical examination garment possessing an opening between the legs extending from front to back. A rear flap attached to the rear of the garment and a front flap attached to the front of the garment covers the crotch opening. The flaps either individually or simultaneously are lifted from the garment to expose the genital area.

Sportswear having flapped openings at the crotch are described in U.S. Patent Number 3,020,556, issued to Isley on February 13, 1962 (men's tights with front flap over pubic region); U.S. Patent Number 6,460,186, issued to Dailly on October 8, 2002 (male-specific cyclist sportswear with front

opening having an external flap and an internal flap over the pubic region to facilitate urination); and U.S. Patent Number 5,539,926, issued to Mantos on July 30, 1996 (sport trouser having a padded triangular fly-flap removably secured over the pubic region).

Still other patents showing outerwear designed with an exposable crotch area include U.S. Patent Number 4,961,234, issued to Leibman on October 9, 1990 (outergarment with detachable multilayered crotch piece having a disposable inner liner and a washable outer portion); U.S. Patent Number 4,604,761, issued to Wright on August 12, 1986 (woman's outergarment with front flap extending from waistline to crotch region); U.S. Patent Number 6,192,522, issued to Schreib on February 27, 2001 (pants with removable crotch flap to facilitate urination by females); U.S. Patent Number 5,822,793, issued to Tokura et al. on October 20, 1998 (clothing with an envelope-like flap covering a crotch opening); U.S. Patent Number 5,010,595, issued to Stradley on April 30, 1991 (woman's trousers having a releasable seam at the crotch and seat portion); U.S. Patent Number 4,578,828, issued to Smith, Sr. et al on April 1, 1986 (woman's pants with padded fly for covering a crotch-opening extending from the rear of the garment to the front of the garment); U.S. Patent Number 3,425,063, issued to Brown on February 4, 1969 (outergarment having a zippered crotch area attached to an undergarment); U.S. Patent Number 2,389,273, issued to Novak on November 20, 1945 (slacks with drop seat); and

U.S. Patent Number 6,477,711, issued to Freeman et al. on November 12, 2002 (unitary garment with buttock flap).

Undergarments with completely removable crotch pieces are described in U.S. Patent Number 2,396,599, issued to O'Brien on March 12, 1946 (undergarment with detachable crotch portion); U.S. Patent Number 2,016,990, issued to Davis on October 8, 1935 (girdle with detachable crotch portion); U.S. Patent Number 4,280,230, issued to LaFleur on July 28, 1981 (disposable training pants with cut-away crotch portion); U.S. Patent Number 1,083,712, issued to Uyveda on January 6, 1914 (undergarment having detachable sanitary piece); Japanese Patent Number 2002-186,642 published on December 24, 1991 and U.S. Patent Number 5,074,854, issued on December 24, 1991 both to Davis (disposable undergarment with tear-away crotch portion); and U.S. Patent Number 2,477,593, issued to Gershenow on August 2, 1949 (panty girdle with detachable and replaceable crotch portion).

Undergarments with a partially removable crotch flap covering a crotch opening include U.S. Patent Number 6,412,119, issued to Robles on July 2, 2002 (undergarment with a forward flap); U.S. Patent Number 4,951,321, issued to Mortensen et al. on August 28, 1990 (undergarment with rear and front panels to cover crotch region); U.S. Patent Number 3,974,836, issued to Carlson on August 17, 1976 (girdle with panel affixed to rear of garment); U.S. Patent Number 3,279,469, issued to Schustack on October 18, 1966 (foundation garment with crotch panel secured to rear of garment); U.S. Patent Number 4,637,078, issued to

Southwell on January 20, 1987 (undergarment with waterproof flap secured to rear of garment); U.S. Patent Number 2,896,633, issued to McKee on July 28, 1959 (garment with crotch piece secured to back of garment); and U.S. Patent Number 602,188, issued to Sittig on (trunk with a flap covering a crotch opening).

Pantyhose having an easily accessible crotch area are disclosed in U.S. Patent Number 6,324,699, issued to Cosmah on December 4, 2001 (pantyhose with forward opening crotch flap fixedly secured to the front of pantyhose); and U.S. Patent Number 4,807,304, issued to McCants-Reed on February 28, 1989 (men's pantyhose having front flap to expose front of torso and rear flap to expose rear of torso).

Undergarments with pockets are shown in U.S. Patent Number 6,018,823, issued to Ortmeier on February 1, 2000; U.S. Design Patent Number 396,542, issued to Nicholson on August 4, 1998; U.S. Patent Number 5,093,935, issued to Countee, Jr. on March 10, 1992; U.S. Design Patent Number 339,219, issued to Beauchemin on September 14, 1993; U.S. Patent Number 5,172,430, issued to Lerma-Solis on December 22, 1992; U.S. Design Patent Number 341,470, issued to Quick on November 23, 1993; and U.S. Patent Number 5,067,178, issued to Katchka on November 26, 1991.

None of the above inventions and patents, taken either singly or in combination, is seen to describe the instant invention as claimed. Thus a unisex active wear garment with modified fly-flap and storage pockets solving the aforementioned problems is desired.

SUMMARY OF THE INVENTION

The unisex active wear garment with modified fly-flap and storage pockets is a pair of shorts or pants having a crotch opening covered by a completely removable or partially removable fly-flap having one or more pockets disposed thereon. The crotch opening is designed for use by either a male or female user. The wearer either partially or completely removes the fly-flap from the crotch opening to modestly perform bodily functions without entirely disrobing. Pockets found on the fly-flap allow the wearer to carry necessities such as toiletries, snacks or keys.

Accordingly, it is a principal object of the invention to provide a garment having a crotch opening suitable for either male or female users.

It is another object of the invention to provide a garment having a crotch opening covered by a removable fly-flap for allowing the wearer to perform bodily functions.

It is a further object of the invention to provide a garment having a crotch opening covered by a removable fly-flap for allowing the wearer to perform bodily functions without having to completely disrobe.

Still another object of the invention is to provide a garment having pockets on a removable fly-flap to hold small items.

It is an object of the invention to provide improved elements and arrangements thereof for the purposes described

which is inexpensive, dependable and fully effective in accomplishing its intended purposes.

These and other objects of the present invention will become readily apparent upon further review of the following
5 specification and drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1 is an environmental, perspective view of a unisex active wear garment with modified fly-flap and storage pockets according to the present invention, a corner of the flap being
10 partially open.

Fig. 2 is a front perspective view of the unisex active wear garment with modified fly-flap and storage pockets according to the present invention with one end of the fly-flap partially removed from the garment.

15 Fig. 3 is a bottom perspective view of the unisex active wear garment with modified fly-flap and storage pockets according to the present invention in an open configuration.

Fig. 4 is a rear perspective view of the unisex active wear garment with modified fly-flap and storage pockets according to
20 the present invention with the fly-flap temporarily attached to the rear of the garment in an open configuration.

Fig. 5 is a fragmented perspective view of the unisex active wear garment of the present invention, showing details of the fly-flap.

Fig. 6 is a front perspective view of an alternative embodiment of the unisex active wear garment with modified fly-flap and storage pockets according to the present invention shown in an open configuration.

5 Fig. 7 is a front perspective view of another alternative embodiment of the unisex active wear garment showing the fly-flap completely removed from the garment.

Fig. 8A is an elevation view showing the interior side of a fly-flap of the embodiment of Fig. 7.

10 Fig. 8B is a perspective view showing the exterior side of the fly-flap of Fig. 8A.

Similar reference characters denote corresponding features consistently throughout the attached drawings.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

15 The present invention is a unisex active wear garment with modified fly-flap and storage pockets, designated generally as 20 in Figs. 1-4. The garment 20 is shown in Fig. 1 as a pair of shorts extending to about mid-thigh. However it will be understood that the scope of the present invention extends to
20 active wear shorts or pants of any length adapted for being worn on the lower body, including short-shorts, mid-thigh shorts, knee-high shorts, calf-length pants, and long pants. The garment 20 can be constructed from a single type of fabric, or from fabric blends, or from several pieces of material of different

fabric types, such as cotton, spandex, nylon, polyester, and blends of the above.

The garment 20 has an elastic waistband 22 sewn into a seam at the top of the garment 20 to encircle the waist and retain the garment 20 on the wearer's body, two legs 24 extending from the torso section and defining leg openings at the bottom of the garment 20, and a crotch opening disposed between the legs that is covered by a fly-flap 30 having pockets 40 and 44 disposed thereon. As described more fully below, pocket 40 opens laterally, while pocket 44 opens at the top of the flap 30. The garment 20 is pulled on the body in the usual manner one's legs through the legs 24 of the garment 20 and stretching the garment 20 up over the lower torso to encircle the waist.

The torso and leg sections of the garment 20 may be formed in a variety of ways, e.g., the garment 20 may be formed by a left panel and a right panel joined by front and rear seams and by inseams along the left and right legs 24, the rear of the flap 30 being stitched to the seat of the pants in the crotch area, as described below. Alternatively, the left and right panels may be further formed by front and rear portions joined by a side seam, so that the garment comprises left front, left rear, right front, and right rear panels, in addition to flap 30. Still further, instead of left and right panels, in some embodiments the garment 20 may be formed solely by front and back panels, together with the flap 30 covering the crotch area as described below.

Fig. 2 shows the front of the active wear garment 20 with the fly-flap 30 partially removed from the garment. Fly-flap 30 comprises an elongated strip or panel of fabric having a substantially rectangular upper end 30a and a lower end 30b tapering to a generally triangular point (shown in shadow in Fig. 2). The lower end 30b of the fly-flap 30 is fixed to the rear seat of the garment 20 by sewing. The upper end 30a of the fly-flap 30 is releasably secured to the front of the garment 20 between about 1/2" to one inch below the waistband 20 by mating fasteners 32a, 32b. Fastener 32b is positioned on the exterior-front of the garment 20 between the waistband 22 and the crotch opening to engage fastener 32a positioned on the interior side of fly-flap 30. Mating fasteners 32a, 32b are preferably a hook and loop material, but can also be snap members or buttons.

Fig. 3 displays the underside of garment 20 as seen from the rear with the fly-flap 30 being fully retracted from the garment 20 and drawn rearward to expose crotch opening 36. Crotch opening 36 is positioned to align with the genitalia of the wearer, and extends sufficiently high up the front side of the garment 20 to fully expose the penis or vulva, respectively, to permit quick access, forming an inverted V-shaped opening 36. A liner 34 is fixed to the interior side of the fixed end of the fly-flap 30b, and is shaped and dimensioned to cover opening 36 when fly-flap 30 is in the closed position, thereby overlying the pubic area. The liner 34 is moisture absorptive and, therefore, permits the wearer to wear garment 20 by itself, both as an

ouergarment and an undergarment. Fastener 32a is attached to the interior surface of the fly-flap, and extends from the liner 34 to the upper end 30a of the fly-flap 30.

5 The crotch opening 36 is suitable for both the male anatomy and the female anatomy and permits the wearer to urinate or defecate modestly without disrobing. To perform either bodily function, the wearer pulls the fly-flap 30 away from the front of the garment, disengaging fastener 32a from fastener 32b, and drags the fly-flap down between the legs and back up to the rear
10 of the garment to expose the pubic and perianal area. As shown in Fig. 4, fly-flap 30 is held in the open position by engaging fastener 38a, which is attached to the exterior side of fly-flap 30, as shown in Fig. 1, to the fastener 38b found on the waistband. Fastener 38b can be located anywhere along the rear
15 of the garment to maintain the fly-flap in an open position. Preferably, fasteners 38a and 38b comprise mating patches of hook and loop fastening material.

Referring now to Fig. 5, it can be seen that pocket 40 opens laterally, while pocket 44 opens at the top. Pocket 40 includes
20 fastener 42 disposed about the mouth of the pocket to seal vertical pocket 40 in a closed position. Pocket 40 is preferably made from waterproof material, or has a waterproof liner, in order to hold and keep items dry, such as toilet tissue, tampons, etc. Pocket 44 is accessible from the top of the fly-flap 30 and includes fastener 46 disposed about the mouth of the pocket 44 to seal the pocket 44 closed. Fasteners 42 and 46 are preferably

zippers, but can also be hook and loop strips, buttons or snap members. Pockets 40 and 44 provide the wearer a convenient place to hold items such as toilet paper, identification cards, keys and snacks.

5 Pockets 40 and 44 may be formed, e.g., by a piece of fabric doubled over to form a front wall and a back wall. The back wall has its bottom edge and two lateral edges sewn to flap 30, thereby defining pocket 44, opening at the upper end 30a of flap 30. The front wall also has its bottom edge and one lateral edge
10 sewn to flap 30, but the upper edge of the front wall is sewn to the upper edge of the back wall, thereby defining pocket 40, which opens laterally.

Fig. 6 shows an alternative embodiment of an active wear garment of the present invention, designated generally as 200, in
15 which the fly-flap 230 is fixed to the front of garment 200. The fixed end of the fly-flap 230b is secured to the front of garment 200 by sewing, and the releasably secured end of the fly-flap 230a is attached to the rear of the garment 200 by releasable fasteners. In use, the wearer uncovers the crotch opening by
20 pulling the releasably secured end of fly-flap 230a away from the fastener found on the center-rear of the garment (not shown in Fig. 6) down between the legs 224 and up to the front of the garment 200. To maintain fly-flap 230 in an open position, the wearer attaches fastener 238a, disposed on the exterior of the
25 free end of fly-flap 230a, to fastener 238b, which is disposed on the front of the garment 200 at the waistband 222. Fasteners

238a and 238b are preferably hook and loop strips but they can also be other material such as snap members or buttons. After the wearer has performed their bodily function, the wearer releases fastener 238a from fastener 238b and brings fly-flap 230
5 back to its original position on the rear of the garment. The fly-flap 230 includes top opening pocket 244 and laterally opening pocket 240, similar to pockets 44 and 40, respectively.

Another alternative embodiment is illustrated in Fig. 7, which shows a front view of an active wear garment 300 that has a
10 completely removable fly-flap 330. Garment 300 has waistband 322, legs 324, and crotch opening 336. In the present figure, fly-flap 330 is not shown, being completely removed from the garment 300. Fastener 332b is positioned in the center-front of garment 300. Though not shown, a symmetrical fastener 332b is
15 also positioned in the center-rear of garment 300. Fastener 332b is preferably hook and loop material for quick release, but may also be any other releasable fastener, such as snap members or buttons.

Figs. 8A and 8B show fly-flap 330 completely removed and
20 separate from garment 300. Fly-flap 330 is an elongated, substantially rectangular strip or panel of material. Fig. 8A shows the interior side of fly-flap 330. Fig. 8A shows fastener 332a disposed at the opposite ends of fly-flap 330, and liner 334 disposed in the center thereof. When fly-flap 330 is replaced on top of the garment 300, fastener 332a is positioned to engage fastener 332b and liner 334 is positioned to cover crotch opening

336 to close the garment's opening and overlay the pubic area. Fasteners 332a and 332b are preferably hook and loop strips, but it can also be other releasable fasteners.

Fig. 8B shows the exterior side of fly-flap 330. Fly-flap 330 has four pockets, two laterally opening pockets 340a and 340b, and two pockets 344a and 344b opening towards the top and bottom of flap 330, respectively. Pockets 340a and 340b are releasably closed by fasteners 342a and 342b, respectively; pockets 344a and 344b are releasably closed by fasteners 346a and 346b, respectively. Fasteners 342a, 342b and 346a, 346b are preferably zippers, but can also be hook and loop fastener strips, buttons or snap members. When the fly-flap 330 is positioned on the garment 300, the wearer has two pockets 340a, 344a on the front of the garment 300 and two pockets 340b, 344b on the rear of the garment. Garment 300, unlike garments 20 and 200, does not have corresponding fasteners 38a, 38b or 238a, 238b because here when the user desires to perform bodily functions, the entire fly-flap 330 is completely removed from garment 300.

It is to be understood that the present invention is not limited to the embodiments described above, but encompasses any and all embodiments within the scope of the following claims.